

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested in view of the foregoing amendments and discussion presented herein.

1. **Information Disclosure Statement.**

The Examiner stated that the information disclosure statement filed on May 15, 2002 fails to comply with 37 CFR 1.98(a)(2) for the reason that copies of the citations were not provided.

In response, the Applicant respectfully notes that copies of the forty-five (45) citations listed on the information disclosure statement filed on May 15, 2002 were submitted. As evidence of that fact, the Application is submitting herewith a copy of the return postcard bearing an official date stamp of May 15, 2002 showing receipt of the 45 citations, along with the certification under 37 CFR 1.10 that accompanied those citations.

It appears that the USPTO has lost the citations submitted by the Applicant. Therefore, the Applicant is submitting herewith a duplicate set of the citations. Since the information disclosure statement and listed citations were timely filed, the Applicant respectfully requests that the subject information disclosure statement be properly considered.

2. **New Information Disclosure Statements.**

The Applicant is submitting herewith a new information disclosure statement herewith and one reference consisting of a Japanese patent. The Applicant also calls to the attention of the Examiner that an Electronic Information Disclosure Statement was filed on December 2, 2003.

3. **Objection to Claim 104.**

The Applicant has corrected Claim 104 in response to objection thereof by the Examiner.

4. **Allowability of Claims 18, 27 and 49.**

The Applicant notes with appreciation the Examiner's indication of the allowability

of Claims 18, 27 and 49. In order to expedite prosecution, and without waiving or disclaiming the subject matter of any of the pending claims prior to amendment or cancellation, the Applicant has responded in the following manner:

- (a) Claim 1 has been amended to include the limitations of Claim 18.
- (b) Claim 22 has been amended to include the limitations of Claim 27.
- (c) Claim 51 has been amended to include the limitations of Claim 18.
- (d) Claim 64 has been amended to include the limitations of Claim 18.
- (e) Claim 97 has been amended to recite that the first and second ion beam sources are configured for sequential emission of at least two said ion beams (see, e.g., allowable Claims 18 and 27).
- (f) Claim 105 has been amended to recite that the first and second ion beam sources are configured for sequential emission of at least two said ion beams (see, e.g., allowable Claims 18 and 27).

Therefore, each of the pending independent claims has been amended so as to recite allowable subject matter; that is, impinging two ion beams on the noncrystalline surface in sequence. Accordingly, Claims 1, 22, 51, 64, 97 and 105, as well as the claims that depend therefrom, are allowable.

Furthermore, the Applicant has added new dependent Claims 113-115 which recite additional features of the invention, support for which can be found at page 5, second full paragraph of the specification, and at page 17, third full paragraph of the specification. Those claims are allowable for the reason that their base claims are allowable.

Lastly, the Applicant has added new dependent Claims 116-119 which recite the combination of sequential and simultaneous bombardment, support for which can be found in original Claim 17 as well as the above-cited portions of the specification. This claim is also allowable for the reason that the base claims are allowable.

5. Addition of Claims 120-191.

The Applicant has added Claims 120-191 of which Claims 120, 139, 167 and

180 are independent. Claims 120, 139, 167 and 180 correspond to Claims 1, 22, 51 and 64 except as modified in the manner discussed below. The remaining dependent claims generally correspond to those found in original claim sets 1-75.

Each of Claims 120, 139, 167 and 180 recite that at least one said step of exposing the noncrystalline surface to said at least two ion beams is not carried out simultaneously with carrying out deposition on said surface. This limitation clearly distinguishes the subject matter of the claims from the teachings of Yasuhiro et al. which has been cited by the Examiner.

Support for this language can be found in the Applicant's specification at, for example, page 4, lines 18-23 where it is stated that "In part, the invention relates to the realization that, by selecting the appropriate combination of parameters, multiple ion beams (e.g., two, three, four, etc.) can be used to increase the degree of texture of the surface (e.g., noncrystalline surface) of a layer of material (e.g., a layer of an already deposited material, such as an already deposited buffer layer) so that the surface of the material has a predetermined crystallographic orientation." At page 17, lines 25-26, the Applicant also states that "a layer can be formed using ion beam assisted deposition, and subsequently textured using ion texturing."

Turning then to Yasuhiro et al., the foregoing is an important distinction. Note that the Applicant's specification refers to forming a layer using ion beam assisted deposition (known in the industry as IBAD) and then subsequently texturing the layer using ion texturing. Accordingly, Claims 120, 139, 167 and 180 recite that at least one step of such ion texturing (which the Applicant refers to as ITEX) takes place separate from ion beam assisted deposition (IBAD); that is, at least one step of ion texturing must take place on a preformed layer. Yasuhiro et al., on the other hand, only describes IBAD techniques; there is nothing in Yasuhiro et al. that teaches, suggests or provides motivation or incentive for texturing an already formed layer. In Yasuhiro et al., the film that is being textured is ***always*** deposited and ion bombarded ***simultaneously***.

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Based on the foregoing, Claims 120, 139, 167 and 180 recite a texturing method that is completely different that used in IBAD; namely, texturing that occurs after material deposition. The Applicant respectfully submits that Yasuhiro et al., which teaches IBAD alone, does not teach, suggest or provide motivation or incentive for the complete inapposite process recited in the Applicant's claims; namely, contacting a previously formed structure with a particle beam without simultaneous deposition.

Therefore, the Applicant respectfully submits that Claims 120-191 are allowable.

6. Related Application.

The Applicant calls to the attention of the Examiner co-pending application serial number 09/739,391 filed on 12/15/2000 which is related to the subject matter of Claims 170-241.

7. Conclusion.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

The Applicant also respectfully requests a telephone interview with the Examiner in the event that there are questions regarding this response, or if the next action on the merits is not an allowance of all pending claims.

Date:

12/4/2003

Respectfully submitted,



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